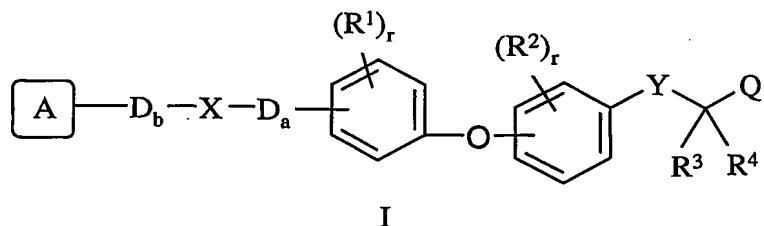


## WHAT IS CLAIMED IS:

1. A compound having a formula I,



or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

A

is:

- a) aryl,
- b) a 5- to 10-membered heteroaryl wherein the heteroaryl containing at least one heteroatom selected from N, O or S,
- c) C<sub>3</sub>-C<sub>8</sub> cycloalkyl,
- d) aliphatic group, or
- e) heterocyclyl,

10       wherein aryl, heteroaryl, cycloalkyl, heterocyclyl and aliphatic group being optionally substituted with one or more groups independently selected from R<sup>8</sup>;

15       D<sub>a</sub> and D<sub>b</sub> are each independently:

a bond or

20       -[C(R<sup>c</sup>)(R<sup>d</sup>)]<sub>n</sub>, wherein R<sup>c</sup> and R<sup>d</sup> are each independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or aryl;

Q is: -C(O)OR<sup>5</sup> or R<sup>5A</sup>;

X is: NR<sup>6</sup>C[O]<sub>p</sub>,

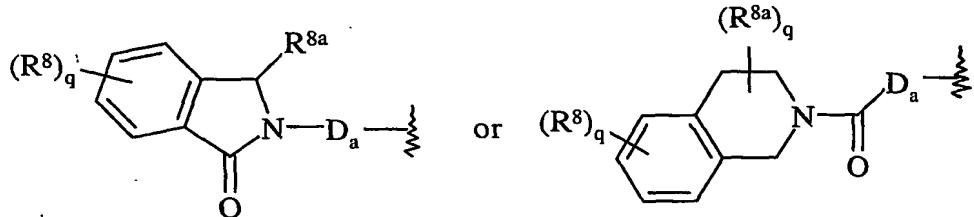
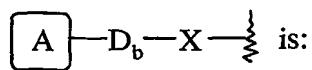
25       NR<sup>6</sup>S(O)<sub>2</sub>,

C[O]<sub>p</sub>NR<sup>6</sup>,

S(O)<sub>2</sub>NR<sup>6</sup> or

NR<sup>7</sup>;

Y is: a bond,  $\text{CH}_2$ , S or O;



n and r are each independently: 1, 2, 3 or 4;

5 q is: 1, 2, 3, 4 or 5;

p is: 1 or 2;

$\text{R}^1$  and  $\text{R}^2$  are each independently: hydrogen,  $\text{C}_1\text{-C}_6$  alkyl, halo or haloalkyl;

10  $\text{R}^3$  and  $\text{R}^4$  are each independently:

hydrogen,

halo,

$\text{C}_1\text{-C}_6$  alkyl,

$\text{C}_1\text{-C}_6$  alkoxy or

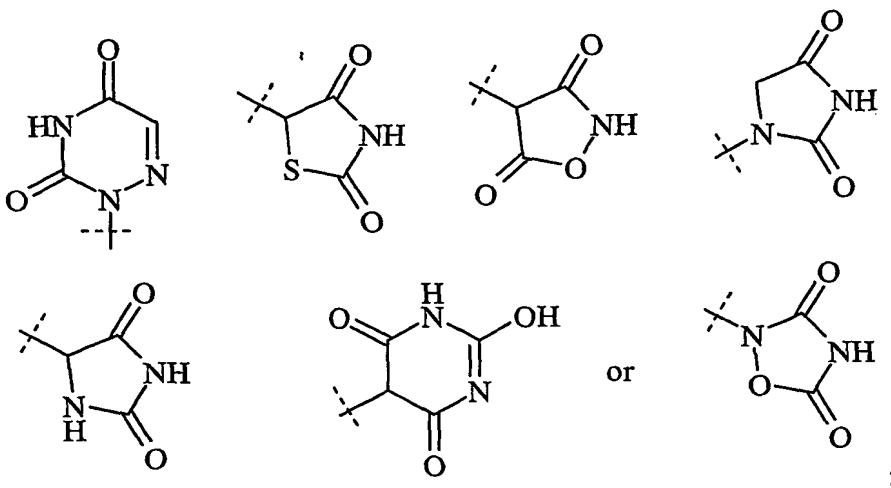
15 aryloxy;

$\text{R}^3$  and  $\text{R}^4$  are together a 3- to 6- membered carbocyclyl or heterocyclyl;

$\text{R}^5$  is: hydrogen,  $\text{C}_1\text{-C}_6$  alkyl or aminoalkyl;

20

$\text{R}^{5A}$  is: carboxamide, sulfonamide, acylsulfonamide, tetrazole,



$R^6$  is each independently:

hydrogen,

5  $C_1$ - $C_{12}$  alkyl,

arylalkyl,

$C_3$ - $C_8$  cycloalkyl, or

$(CH_2)_nC(O)aryl$ ,

wherein alkyl, arylalkyl and cycloalkyl group being optionally substituted with  
10 one or more groups independently selected from  $R^8$ ;

$R^7$  is: hydrogen,

acyl, or

sulfonyl;

15  $R^8$  and  $R^{8a}$  are each independently:

hydrogen,

$C_1$ - $C_6$  alkyl,

$C_1$ - $C_6$  alkoxy,

nitro,

20 cyano,

halo,

haloalkyl,

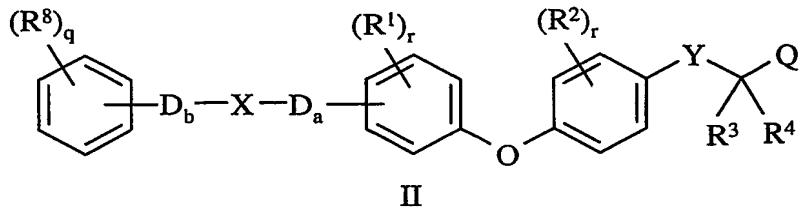
haloalkyloxy,

aryl,  
heteroaryl,  
benzyl,  
aryloxy,  
5       $SR^9$ ,  
 $S[O]_pR^9$  or  
 $C[O]_pR^9$ ; and

10       $R^9$  is: hydrogen,  $C_1$ - $C_6$  alkyl, or  $C_3$ - $C_8$  cycloalkyl.

15      2.      The compound of Claim 1, wherein aryl or heteroaryl are selected from the group consisting of phenyl, naphthyl, indolyl, isoindolyl, benzoimidazolyl, quinolinyl, isoquinolinyl, pyridyl, benzothiophenyl and benzofuranyl.

20      3.      The compound of Claim 2, wherein the compound having a structural formula II,

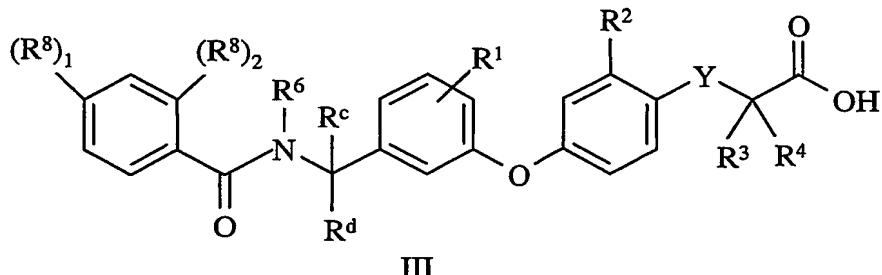


or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

25      q is 1, 2, 3, 4, or 5.

4.      The compound of Claim 3, wherein  $R^8$  is disubstituted in 2 and 4 positions, or trisubstituted in 2, 4, and 6 positions of phenyl ring relative to  $-D_b-$ .

5. The compound of Claim 3, wherein the compound having a structural formula III,



5 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

Y is: O or  $\text{CH}_2$ ;

$\text{R}^1$  is: hydrogen, halo or  $\text{C}_1\text{-C}_4$  alkyl;

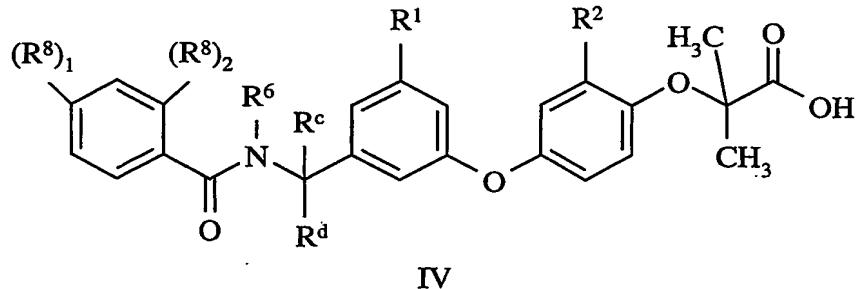
$\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^6$ ,  $\text{R}^c$  and  $\text{R}^d$  are each independently: hydrogen or  $\text{C}_1\text{-C}_4$  alkyl;

$(\text{R}^8)_1$  and  $(\text{R}^8)_2$  are each independently: hydrogen, halo, haloalkyl or haloalkyloxy, cyano, 10 nitro,  $\text{C}_1\text{-C}_6$  alkyl,  $\text{C}_1\text{-C}_6$  alkoxy or  $\text{SR}^9$ ;

$\text{R}^6$  is: hydrogen or  $\text{C}_1\text{-C}_4$  alkyl; and

$\text{R}^9$  is: hydrogen or  $\text{C}_1\text{-C}_4$  alkyl or  $\text{C}_3\text{-C}_6$  cycloalkyl

6. The compound of Claim 5, wherein the compound having a 15 structural formula IV,



or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

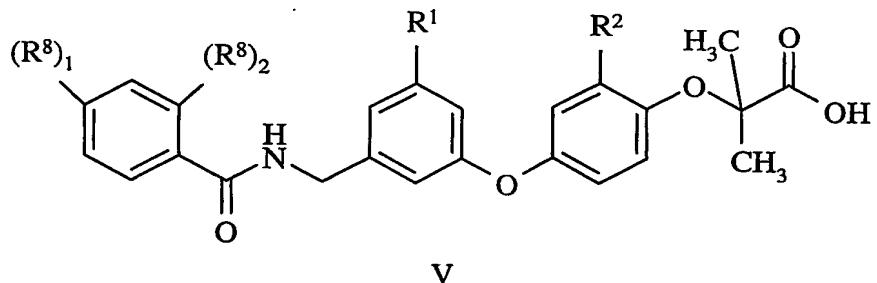
$\text{R}^1$  and  $\text{R}^2$  are each independently: hydrogen, halo or  $\text{C}_1\text{-C}_4$  alkyl;

20  $\text{R}^c$ ,  $\text{R}^d$  and  $\text{R}^6$  are each independently: hydrogen or methyl; and

$(\text{R}^8)_1$  and  $(\text{R}^8)_2$  are each independently:

hydrogen, F, Cl, Br, OMe,  $\text{CF}_3$ ,  $\text{OCF}_3$ ,  $\text{SCH}_3$ ,  $\text{NO}_2$ , cyano, methyl, ethyl, isobutyl, isopropyl or *tert*-butyl.

7. The compound of Claim 6, wherein the compound having a structural formula V,



5

V

or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

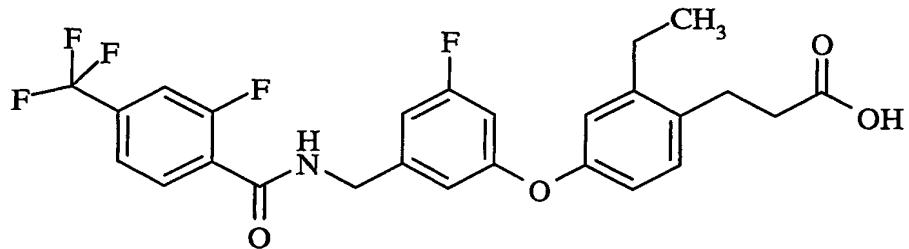
R<sup>1</sup> and R<sup>2</sup> are each independently: hydrogen, methyl, ethyl or fluoro; and

(R<sup>8</sup>)<sub>1</sub> and (R<sup>8</sup>)<sub>2</sub> are each independently:

hydrogen, F, Cl, Br, OMe, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, NO<sub>2</sub>, cyano, methyl, ethyl, isobutyl, 10 isopropyl or *tert*-butyl.

10

8. The compound of Claim 7, wherein the compound having a structural formula VI,

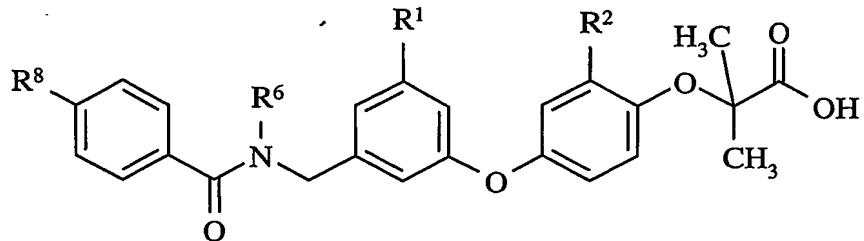


15

VI

or a pharmaceutically acceptable salt or stereoisomer thereof.

9. The compound of Claim 3, wherein the compound having a structural formula VII,



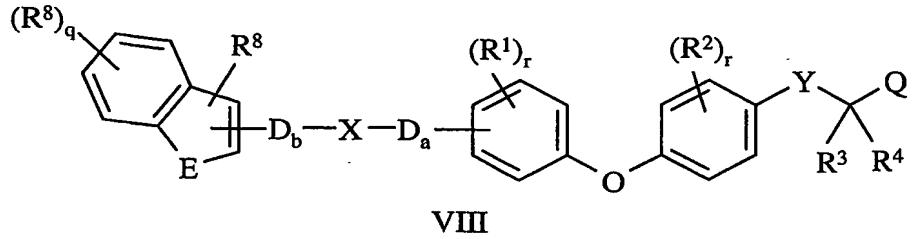
VII

5 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:  
 R<sup>1</sup> and R<sup>2</sup> are each independently: hydrogen, halo or C<sub>1</sub>-C<sub>4</sub> alkyl;  
 R<sup>6</sup> is: hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl;  
 R<sup>8</sup> is: hydrogen, halo, haloalkyl or haloalkyloxy, cyano, nitro, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or SR<sup>9</sup>; and  
 10 R<sup>9</sup> is: hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl or C<sub>3</sub>-C<sub>6</sub> cycloalkyl.

10. The compound of Claim 9, wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>6</sup> are each independently hydrogen or methyl; and R<sup>8</sup> is hydrogen, F, Cl, Br, OMe, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, NO<sub>2</sub>, methyl, ethyl, isobutyl, isopropyl or *tert*-butyl.

15

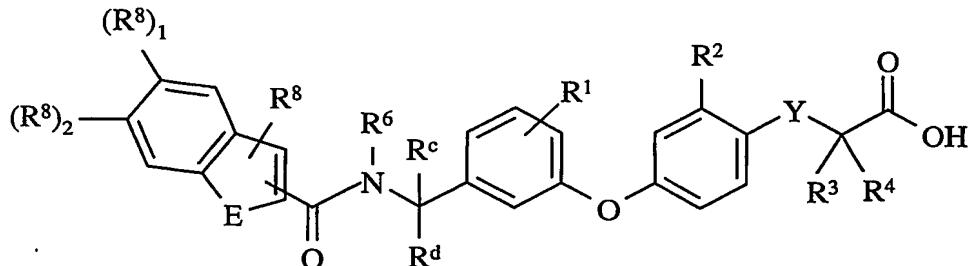
11. The compound of Claim 1, wherein the compound having a structural formula VIII,



VIII

20 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:  
 q is 1, 2, 3 or 4; and  
 E is S, O or NR<sup>10</sup> wherein R<sup>10</sup> is hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl.

12. The compound of Claim 11, wherein the compound having a structural formula IX,



IX

5 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

Y is: O or  $\text{CH}_2$ ;

E is: S, O, NH or  $\text{NCH}_3$ ,  $\text{NCH}_2\text{CH}_3$ ;

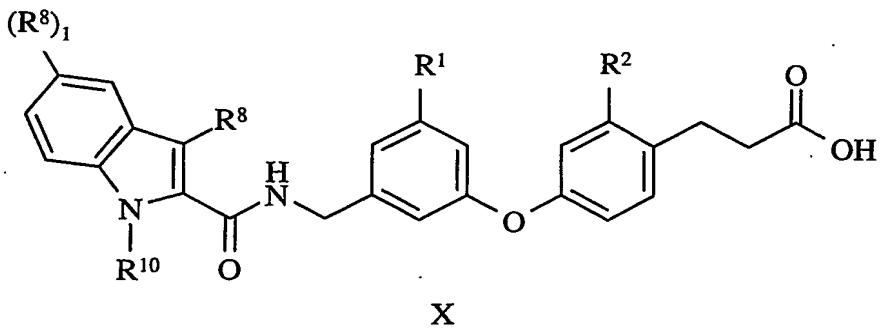
$\text{R}^1$  is: hydrogen,  $\text{C}_1\text{-C}_4$  alkyl, halo or haloalkyl;

$\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^6$ ,  $\text{R}^c$  and  $\text{R}^d$  are each independently: hydrogen or  $\text{C}_1\text{-C}_4$  alkyl;

10  $(\text{R}^8)_1$  and  $(\text{R}^8)_2$  are each independently: hydrogen, halo, haloalkyl, haloalkyloxy, cyano, nitro,  $\text{C}_1\text{-C}_6$  alkyl or  $\text{C}_1\text{-C}_6$  alkoxy; and

$\text{R}^8$  is: hydrogen or  $\text{C}_1\text{-C}_4$  alkyl.

13. The compound of Claim 12, wherein the compound having a structural formula X,



X

or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

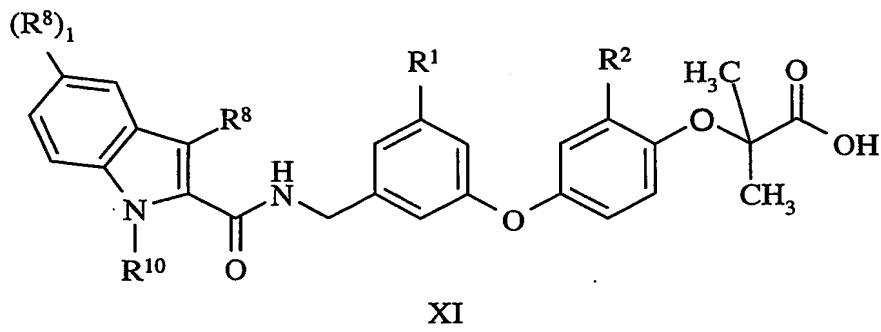
$\text{R}^1$  and  $\text{R}^2$  are each independently: hydrogen, halo or  $\text{C}_1\text{-C}_4$  alkyl;

20  $(\text{R}^8)_1$  is: hydrogen, F, Cl, Br, OMe,  $\text{CF}_3$ ,  $\text{OCF}_3$ ,  $\text{SCH}_3$ ,  $\text{NO}_2$ , cyano, nitro, methyl, ethyl, isobutyl, isopropyl or *tert*-butyl;

$\text{R}^8$  is: hydrogen, methyl, ethyl or propyl; and

R<sup>10</sup> is: hydrogen, methyl or ethyl.

14. The compound of Claim 12, wherein the compound having a structural formula XI,



or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

R<sup>1</sup> and R<sup>2</sup> are each independently: hydrogen, halo or C<sub>1</sub>-C<sub>4</sub> alkyl;

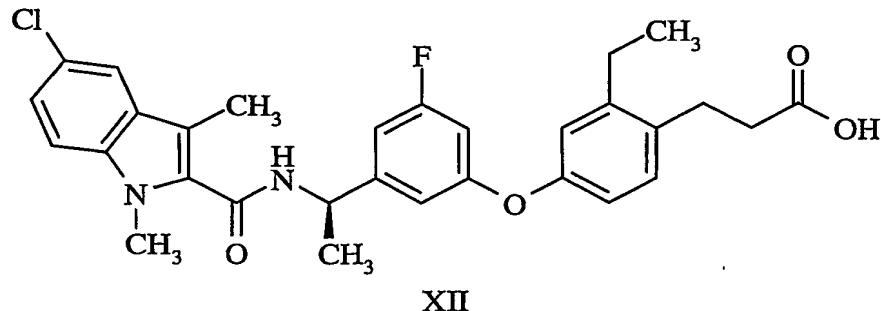
(R<sup>8</sup>)<sub>1</sub> is: hydrogen, F, Cl, Br, OMe, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, NO<sub>2</sub>, cyano, nitro, methyl, ethyl,

10 isobutyl, isopropyl or *tert*-butyl;

R<sup>8</sup> is: hydrogen, methyl, ethyl or propyl; and

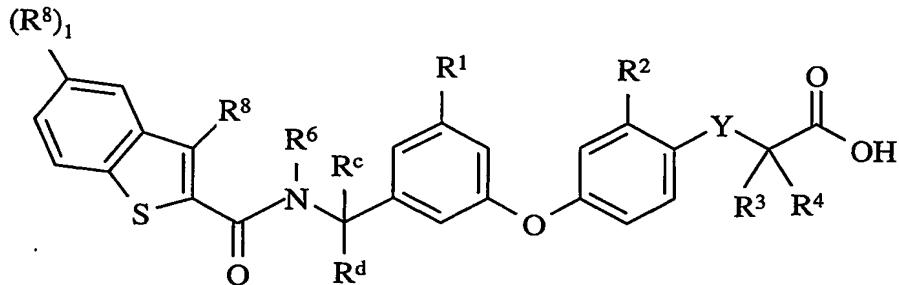
R<sup>10</sup> is: hydrogen, methyl or ethyl.

15. The compound of Claim 12, wherein the compound having a structural formula XII,



or a pharmaceutically acceptable salt.

16. The compound of Claim 12, wherein the compound having a structural formula XIII,



XIII

5 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

Y is: O or CH<sub>2</sub>;

R<sup>1</sup> is: hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, halo or haloalkyl;

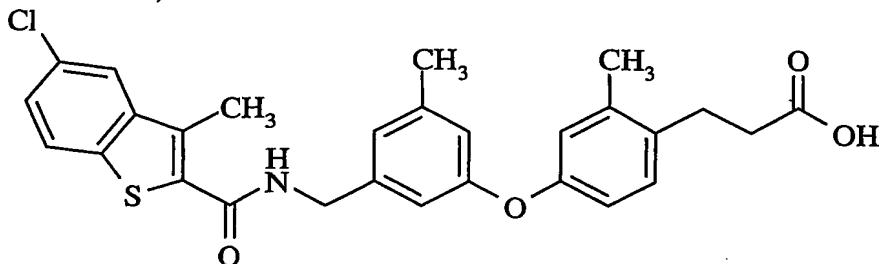
R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>6</sup>, R<sup>c</sup> and R<sup>d</sup> are each independently: hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sup>8</sup> are each independently: hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl; and

10 (R<sup>8</sup>)<sub>1</sub> is: hydrogen, halo, haloalkyl or haloalkyloxy, cyano, nitroC<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>1</sub>-C<sub>6</sub> alkoxy.

17. The compound of Claim 16, wherein Y is O or CH<sub>2</sub>; R<sup>1</sup> is hydrogen, methyl, F, Br or Cl; R<sup>2</sup> is hydrogen, methyl or ethyl; R<sup>3</sup>, R<sup>4</sup>, R<sup>6</sup>, R<sup>8</sup>, R<sup>c</sup> and R<sup>d</sup> are each independently hydrogen or methyl; and (R<sup>8</sup>)<sub>1</sub> is hydrogen, F, Cl, Br, OMe, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>, NO<sub>2</sub>, cyano, nitro, methyl, ethyl, isobutyl, isopropyl or *tert*-butyl.

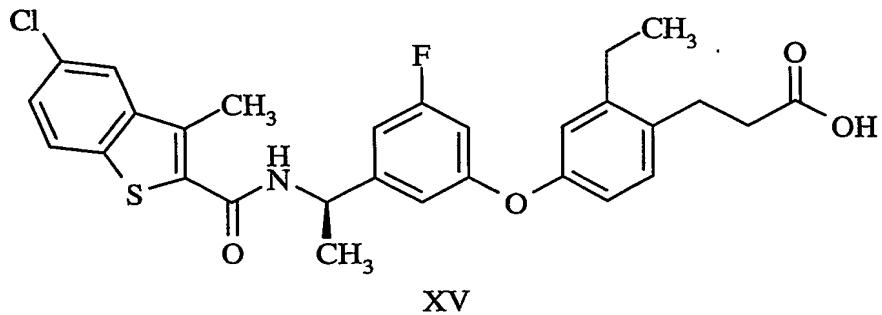
18. The compound of Claim 15, wherein the compound having a structural formula XIV,



XIV

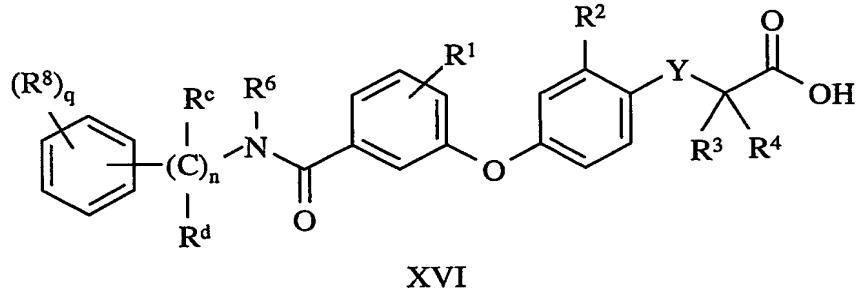
or a pharmaceutically acceptable salt.

19. The compound of Claim 15, wherein the compound having a structural formula XV,



or a pharmaceutically acceptable salt.

10 20. The compound of Claim 1, wherein the compound having a structural formula XVI,



or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

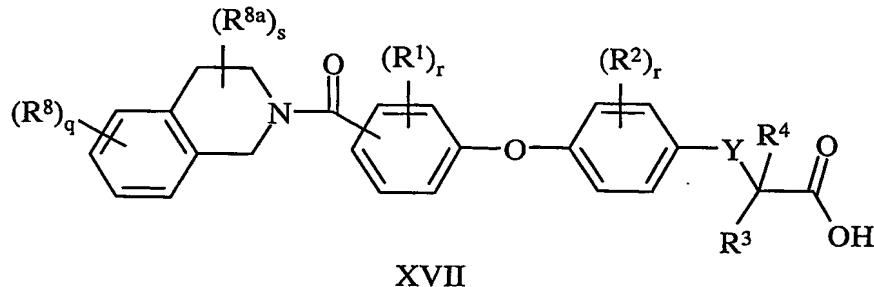
n is 1, 2, 3, or 4.

15

21. The compound of Claim 20, wherein Y is O or CH<sub>2</sub>; R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> R<sup>c</sup> and R<sup>d</sup> are each independently hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl; n is 1 or 2; R<sup>6</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or arylalkyl; and R<sup>8</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkoxy, halo or haloalkyl.

20

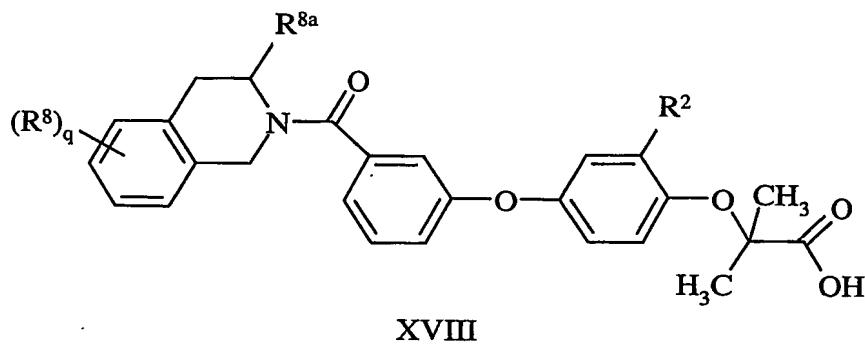
22. The compound of Claim 1, wherein the compound having a structural formula XVII,



5 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

$R^{8a}$  is hydrogen,  $C_1$ - $C_4$  alkyl or aryl; and  $s$  is 1, 2, 3, 4, 5 or 6.

23. The compound of Claim 22, wherein the compound having a structural formula XVIII,



or a pharmaceutically acceptable salt or stereoisomer thereof, wherein:

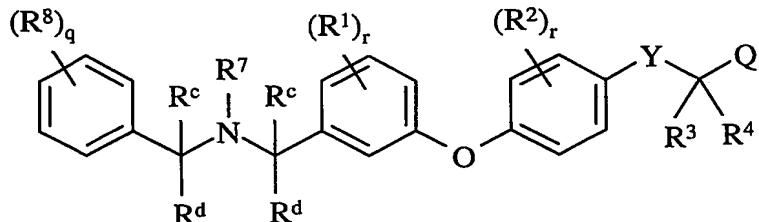
$R^2$  is: hydrogen or  $C_1$ - $C_4$  alkyl,

$R^8$  is: hydrogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy, halo, haloalkyl or haloalkyloxy;

15  $R^{8a}$  is: hydrogen, methyl, or phenyl; and

$q$  is: 1 or 2.

24. The compound of Claim 1, wherein the compound having a structural formula XIX,



XIX

5 or a pharmaceutically acceptable salt or stereoisomer thereof.

25. The compound of Claim 24, wherein Q is COOH; R<sup>7</sup> is hydrogen, methanesulfonyl or acetyl; and R<sup>c</sup> and R<sup>d</sup> are each hydrogen.

10

26. A compound selected from the group consisting of:

No	Structure	Name
1		2-(4-{3-[(2-Chloro-4-trifluoromethyl-benzoylamino)-methyl]-5-fluoro-phenoxy}-2-methyl-phenoxy)-2-methyl-propionic acid
2		3-[4-(3-[(5-Chloro-1H-indole-2-carbonyl)-amino]-methyl]-5-fluoro-phenoxy)-2-methyl-phenyl]-propionic acid
3		2-(4-{3-Fluoro-5-[1-(2-methyl-4-trifluoromethyl-benzoylamino)-ethyl]-phenoxy}-2-methyl-phenoxy)-2-methyl-propionic acid (isomer 1)
4		2-[4-(3-[(5-Chloro-3-methyl-benzo[b]thiophene-2-carbonyl)-amino]-methyl]-5-methyl-phenoxy)-2-methyl-phenoxy]-2-methyl-propionic acid

No	Structure	Name
5		(R)-3-[4-(3-{1-[(5-chloro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-ethyl}-5-fluoro-phenoxy)-2-methyl-phenyl]-propionic acid
6		3-(2-Ethyl-4-{3-fluoro-5-[(2-methyl-4-trifluoromethyl-benzoylamino)-methyl]-phenoxy}-phenyl)-propionic acid
7		2-(4-{3-[(2-Fluoro-4-trifluoromethyl-benzoylamino)-methyl]-5-methyl-phenoxy}-2-methyl-phenoxy)-2-methyl-propionic acid
8		(R)-2-[4-(3-{[(5-Chloro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-methyl}-5-methyl-phenoxy)-2-methyl-phenoxy]-2-methyl-propionic acid
9		3-[4-(3-Fluoro-5-{[(5-fluoro-3-methyl-1H-indole-2-carbonyl)-amino]-methyl}-phenoxy)-2-methyl-phenyl]-propionic acid
10		2-[4-(3-Fluoro-5-{[(5-fluoro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-methyl}-phenoxy)-2-methyl-phenoxy]-2-methyl-propionic acid
11		(R)-3-[4-(3-{1-[(5-Fluoro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-ethyl}-5-methyl-phenoxy)-2-methyl-phenyl]-propionic acid

No	Structure	Name
12		2-Methyl-2-(2-methyl-4-{3-[2-methyl-4-trifluoromethyl-benzoylamino]-methyl}-phenoxy)-phenoxy-propionic acid
13		2-(4-{3-Fluoro-5-[2-methyl-4-trifluoromethyl-benzoylamino]-methyl}-phenoxy)-2-methyl-phenoxy)-2-methyl-propionic acid
14		(R)-3-[4-(3-Fluoro-5-{1-[5-fluoro-1,3-dimethyl-1H-indole-2-carbonyl]-amino}-ethyl)-phenoxy]-2-methyl-phenyl-propionic acid
15		3-[4-(3-[(5-Chloro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-methyl)-5-fluoro-phenoxy)-2-methyl-phenyl]-propionic acid
16		3-[4-(3-[(5-Chloro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-methyl)-phenoxy)-2-methyl-phenyl]-propionic acid
17		3-[2-Ethyl-4-(3-fluoro-5-{[(5-fluoro-1,3-dimethyl-1H-indole-2-carbonyl)-amino]-methyl}-phenoxy)-phenyl]-propionic acid
18		3-(4-{3-[(2-Chloro-4-trifluoromethyl-benzoylamino)-methyl]-5-methyl-phenoxy}-2-ethyl-phenyl)-propionic acid

27. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of Claims 1-26 or a pharmaceutically acceptable salt.

28. A pharmaceutical composition comprising:

5 (1) a compound of Claims 1-26, or a pharmaceutically acceptable salt;

(2) a second therapeutic agent selected from the group consisting of:

insulin sensitizers, sulfonylureas, biguanides, meglitinides, thiazolidinediones,  $\alpha$ -glucosidase inhibitors, insulin secretagogues, insulin, antihyperlipidemic agents, plasma HDL-raising agents, HMG-CoA reductase inhibitors, statins, acyl CoA:cholesterol

10 acyltransferase inhibitors, antiobesity compounds, antihypercholesterolemic agents, fibrates, vitamins and aspirin; and

(3) optionally a pharmaceutically acceptable carrier.

29. A method of modulating a peroxisome proliferator activated

15 receptor (PPAR) comprising the step of contacting the receptor with a compound of Claims 1-26, or a pharmaceutically acceptable salt.

30. The method of Claim 29, wherein the PPAR is an alpha ( $\alpha$ )-receptor.

20

31. The method of Claim 29, wherein the PPAR is a gamma ( $\gamma$ )-receptor.

32. The method of Claim 29, wherein the PPAR is a delta ( $\delta$ )-receptor.

25

33. The method of Claim 29, wherein the PPAR is a gamma/delta ( $\gamma/\delta$ )-receptor.

34. The method of Claim 29, wherein the PPAR is an

30 alpha/gamma/delta ( $\alpha/\gamma/\delta$ )-receptor.

35. A method for treating a PPAR- $\gamma$  mediated disease or condition in a mammal comprising the step of administering an effective amount of a compound of Claims 1-26.

5

36. A method for treating a PPAR- $\delta$  mediated disease or condition in a mammal comprising the step of administering an effective amount of a compound of Claims 1-26.

10

37. A method for treating a PPAR- $\gamma/\delta$  mediated disease or condition in a mammal comprising the step of administering an effective amount of a compound of Claims 1-26.

15

38. A method for treating a PPAR- $\alpha/\gamma/\delta$  mediated disease or condition in a mammal comprising the step of administering an effective amount of a compound of Claims 1-26.

39. A method for lowering blood-glucose in a mammal comprising the step of administering an effective amount of a compound of Claims 1-26.

20

40. A method of treating disease or condition in a mammal selected from the group consisting of hyperglycemia, dyslipidemia, Type II diabetes, Type I diabetes, hypertriglyceridemia, syndrome X, insulin resistance, heart failure, diabetic dyslipidemia, hyperlipidemia, hypercholesterolemia, hypertension, obesity, anorexia bulimia, anorexia nervosa, cardiovascular disease and other diseases where insulin resistance is a component, comprising the step of administering an effective amount of a compound of Claims 1-26.

25

41. A method of treating diabetes mellitus in a mammal comprising the step of administering to a mammal a therapeutically effective amount of a compound of Claims 1-26.

42. A method of treating cardiovascular disease in a mammal comprising the step of administering to a mammal a therapeutically effective amount of a compound of Claims 1-26, or a pharmaceutically acceptable salt.

5

43. A method of treating syndrome X in a mammal, comprising the step of administering to the mammal a therapeutically effective amount of a compound of Claims 1-26, or a pharmaceutically acceptable salt.

10

44. A method of treating disease or condition in a mammal selected from the group consisting of hyperglycemia, dyslipidemia, Type II diabetes, Type I diabetes, hypertriglyceridemia, syndrome X, insulin resistance, heart failure, diabetic dyslipidemia, hyperlipidemia, hypercholesterolemia, hypertension, obesity, anorexia bulimia, anorexia nervosa, cardiovascular disease and other diseases where insulin

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resistance is a component, comprising the step of administering an effective amount of a compound of Claims 1-26 and an effective amount of second therapeutic agent selected from the group consisting of: insulin sensitizers, sulfonylureas, biguanides, meglitinides, thiazolidinediones,  $\alpha$ -glucosidase inhibitors, insulin secretagogues, insulin, antihyperlipidemic agents, plasma HDL-raising agents, HMG-CoA reductase inhibitors, statins, acryl CoA:cholestrol acyltransferase inhibitors, antiobesity compounds, antihypercholesterolemic agents, fibrates, vitamins and aspirin.

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45. Use of a compound of Claims 1-26 and a pharmaceutically acceptable salt, for the manufacture of a medicament for the treatment of a condition modulated by a PPAR.

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